



A Newsletter for Water and Wastewater Treatment Plant Operators!

THE WATERDRUM

July 2023

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Save the Date!

Aboriginal Water and Wastewater Association of Ontario is pleased to announce that we are offering a Northern Exam Prep Week from September 18-22, 2023 which will be held at the Delta Sault Ste. Marie Waterfront Hotel, 2018 St. Mary's River Dr., Sault Ste Marie, ON.

Title: Exam Preparation OIT

Title: Exam Preparation WTI and WT II

Course tuition, exam fees, accommodations, breakfast and luncheons and will be covered by AWWAO.

Earn CEUs as you increase your skills.

Deadline to register is August 15, 2023

Don't Miss the
DEADLINE!



Sponsored by: Indigenous Services Canada and First Nations Inuit Health Branch



The meaning of the AWWAO logo as described by the artist:

- Tree—represents Mother Earth*
- Sun—brings Life to our Environment*
- Eagle—watches over the Environment*
- Sky—ensures the Cycle of Water*

ABOUT US

The Aboriginal Water & Wastewater Association of Ontario is an information source for water environment and Operator training and certification issues and technology. AWWAO's members include professionals from Ontario First Nations, Environmental Health Officers, Tribal Councils, Municipal Suppliers and some Government Agencies.

AWWAO is dedicated to the transfer of information and concepts regarding all areas of the water environment. As members of the American Water Works Association (AWWA), the Ontario Water Works Association (OWWA), the Water Environment Federation (WEF) and the Water Environment Association of Ontario (WEAO), we provide an invaluable network for those involved in water and wastewater industry. AWWAO maintains a partnership with First Nation Inuit Health Branch (FNIHB) and Indigenous Services Canada (ISC) and continues to liaise with provincial and federal government agencies. AWWAO has a volunteer seat on many of the various association's committees.

AWWAO offers its members the opportunity to:

- ◆ Be updated and informed about issues that affect the water environment.
- ◆ Interact with persons in various fields of water expertise.
- ◆ Promote concerns of the membership through a collective voice.
- ◆ Exchange information and ideas to other members, the public and Chiefs and Council.

To date, the AWWAO consistently ranks the training and certification of Plant Operators as its top priority. The attainment of Certification is widely recognized as essential to performing a good job, at a high level, in the water and wastewater treatment plant operations, and an indicator of a responsible and contributing community member.

MEMBERSHIP

\$200.00 Membership Fee for First Nations Water and Wastewater Treatment Plant Operators per operator. This Membership entitles the Operator(s) to the AWWAO Newsletter, monthly bulletin, Annual Report and the Annual General Assembly and Training Conference cost reimbursement, if applicable.

\$400.00 Membership Fee for Non-Operator, Public Works Management, Administration and Management of a First Nation or Non-First Nation. This Membership entitles the Member to the AWWAO Newsletter, monthly bulletins, Annual Report and invitation to the Annual General Assembly and Training Conference.

Please Print

Name: _____

Name: _____

Name: _____

Name: _____

First Nation/Business: _____

Address: _____

Phone: _____ Fax: _____

E-mail: _____

VISION

Our Vision is to be the Association that best understands and satisfies the training, education, certification and licensing needs of Operators of Ontario First Nations. Our dedication to supporting Operators touches not only health, but safety, spirit and empowerment ... most of all knowledge.

OBJECTIVES

- ◆ To act as a voice and forum for First Nation Plant Operators in Ontario, publish a newsletter, promote communications and networking among Plant Operators and other persons interested in AWWAO's objectives;
- ◆ Promote the importance of a safe and potable water supply and the highest standard of wastewater operations;
- ◆ Promote the development and delivery of continuing education and training programs for Plant Operators and others involved in water and wastewater treatment;
- ◆ Promote the importance of technical training in maintaining and upgrading the Operator's knowledge of proper water and wastewater operation and maintenance requirements;
- ◆ Promote the importance of involving qualified Operator's in the design, construction or upgrading of water and wastewater treatment plants;
- ◆ Promote the importance of proper training, certification and licensing of Operators;
- ◆ Promote the importance of enhanced lab testing of potable water and monitoring of wastewater effluents; and
- ◆ Promote the importance of establishing an effective Operations & Maintenance Management Plan to ensure proper care is performed for the assets.

MISSION STATEMENT

We are a member oriented, non-profit Association, providing province-wide and year-round high-quality services and an annual forum for the First Nations Water and Wastewater Treatment Plant Operators, allowing for networking opportunities at the same time. We are committed to providing high quality information on the water and wastewater industry through the quarterly newsletter. We are dedicated to promoting, preserving and protecting the water, natural resources and environment through the education, training and networking of the Ontario First Nations Water and Wastewater Treatment Plant Operators.

Aboriginal Water and Wastewater Association of Ontario's newsletter is published quarterly by AWWAO at Box 20001, RPO, Dryden, ON P8N 0A1
Tel: (807) 216-8085
E-mail: info@awwao.org

Advertising opportunities and/or submission or request of information, please contact the Association Coordinator.

Event Recap

Our team is now emerging from the post-conference recovery period, and we wanted to send out a quick message to thank everyone for helping us make our conference such a success. We appreciate everyone who made the conference possible: speakers, sponsors, organizers and attendees alike!

The conference captured a three-day program of training courses, tradeshow vendors, presentations and interactive dialogue between the attendees.

During the three-day program of training courses, attendees dove into in-depth learning, which was designed to teach them skills, techniques and concepts that they could apply directly to their work.

Over 114 people and 31 exhibiting companies made their way to Casino Rama to attend the event. The 7th Annual Tradeshow represented the manufacturers and suppliers products and services to the water industry. It was a great opportunity to meet new people, expand your network, participate in spontaneous conversations, and catch up with water sector friends and colleagues.

Highlights of the conference included: prayers, drummers, the banquet dinner, guest speakers, water ceremonies, Ian Fortin Commemoration, Water Cup Challenge, Operator of the Year and Instructor of the Year Awards and the Blue Willow Open Mic Night.

A big thank you to Indigenous Services Canada and First Nations Inuit Health Branch for funding this event and for their continued support.

We would also like to thank Walkerton Clean Water Centre, Ontario First Nation Technical Services, LEXICON Environmental Consulting Services Inc. and XCG-IBI for providing us with the training courses.

Before I close, I'd like to thank each of you for attending our conference and bringing your expertise to our gathering. You are truly our greatest asset today and tomorrow and we could not accomplish what we do without your support and leadership.



AWWAO Membership

This year's Annual General Meeting (AGM) was held at Casino Rama on May 3, 2023. The agenda was distributed to all members in attendance for their review and reference. A total of 66 First Nation Operators attended.

The AWWAO directors presented the organization's past fiscal year's financial and legal activities to the membership at the AGM.

AWWAO thanks the membership for attending and encourages members to keep an open dialogue throughout the year.

28th Annual Conference Registration

Conference Attendance

Year	AWWAO Members	Attendance at Annual Conference
2015-2016	96	56
2016-2017	99	83
2017-2018	100	79
2018-2019	90	68
2019-2020	157	95
2020-2021	162	99
2021-2022	176	Virtual
2022-2023	186	99
2023-2024	214	110



Water Ceremony

Stephanie Sandy and Patti Williams honoured the AWWAO Conference with an opening prayer, a brief teaching about water and a closing prayer. Thank you for your beautiful words.



The Gary Oja Instructor of the Year Award

AWWAO would like to congratulate James Haskell on receiving the Gary Oja Instructor of the Year Award. This award is given to an individual for a sustained contribution to an effective learning experience for our operators. James consistently demonstrates teaching expertise within our programs. He relates well to the many operators he delivers training to throughout the year and the learning experience he creates results in engaged participants who are keen to take what they learn and apply it back in their home communities.



Congratulations

James!



Phil Tangie, AWWAO Chair presents the award to James Haskell.

Ian Fortin's Commemoration



Ten years ago, I moved back to my First Nation in Chapleau, Ontario. It was only a month after being back that a job posting came up for a Water Operator Trainee position. I didn't know much about water so I started to look into the job and the more I read the more interested in the job I became. Like most people outside the industry, the most I thought about water was turning on the tap every day to use the water that came out. I never really thought more about the process or the people or work that goes into distributing clean drinking water to households. I applied for the job and was given a date a few days later to interview for the position. I asked if there were other candidates and they stated that yes there were a few interviewing on the same day. I wanted this job! Over the next few days, I set out

to learn as much as I could to try and impress the interview committee. I knew that I wouldn't come close to learning the job but I thought if I could show that I was capable of learning the process and the main points and asking the right questions to show my interest so that I stood a great chance at getting the job. A few days later I went to the interview and met Ian Fortin. When I think back, he's the only person I remember from the interview but there were two other people as well. The interview went great and I really felt like I nailed it and a few days later I got the call that if I wanted the position was mine; I took it.

Over the next five years I worked side by side with Ian Fortin who himself had just returned to the First Nation after working for years as a CRTP trainer all over Ontario training operators in First Nation Water Plants. I was fortunate to work daily, side by side with one of the most passionate and knowledgeable advocates for not only water operators but for First Nations peoples. I was tested and trained on a daily basis and had no issues passing everything that was put in front of me. I breezed through my Operator-in-Training certifications all the way to my Level II certifications. We completed a few WCWC mandatory courses and tons of independent certifications. When we would go out of town together for training or events and Ian would always try and find a water plant to visit and tour. He believed that not only would we benefit to learn more about these facilities but it served the plant we visited as well by showing the operators of those plants that the work they do was respected and important. He believed that water operators were a brotherhood and that we should always stand together and support each other.



Not only did we work closely together for years but we were also close friends. We spent a lot of time helping each other over the years. We have had Thanksgivings together, spent time at Christmas exchanging gifts and other holidays that I still fondly remember. I was close with his family as well and he was close with mine. I spent a lot of time with his father Gilbert as well who passed away a few years ago. Gilbert was also a one-of-a-kind man who will also never be forgotten. Even though we spent a lot of time together and we were close, Ian was everyone's friend and had the ability to make you feel like you were his best friend because that is exactly the way he treated all of us.

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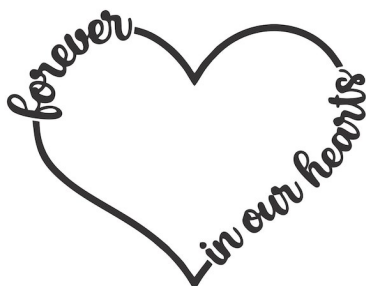
Everywhere I went and still go I run into people who knew him. He was truly a person who would give you the shirt off his back or stop everything to help you if you needed it. He had many friends and opened his home to anyone and everyone. I am not sure why he even locked his doors because everyone knew the door code to get in because everyone was always welcome even if he was not home.

In December of last year, we tragically lost Ian our friend and brother in an instant. A few days prior to his sudden death he stopped into the plant as he often did to check in. My CRTP trainer Noah was with us that day getting ready to head home himself after being with us that week. We all talked, laughed, and ribbed each other like friends do and went our separate ways to enjoy the weekend. It was the last time I would see my friend Ian and thinking back it was a fitting way to have our final visit. At the place we spent so much time together, at home. At the beginning of May, AWWAO the organization in which Ian was apart of for years and the chairperson at the time of

his passing held its annual Conference and Tradeshow. At this event they held a special commemoration for Ian Fortin. It was great to see that his family was invited to attend which they did. Not only was his mother in attendance but his aunts, uncles and many more family shared in the night as well. It was amazing to hear from so many speakers all sharing in the different ways that Ian positively influenced their lives. There were many tears, laughs and stories shared which showed the impact that Ian had with everyone. The one thing that I took from that night more than anything was that his

presence will be missed. It was said over and over again by the people that spoke and it echoed through the entire room. People that never had the opportunity to meet Ian told me that they shed a tear during the event, that they could feel the sorrow of missing our friend or that they felt like they knew him after that night without ever stepping into the same room as him. Ian would not want such a big light shed on him and would play down the impact he had in this world or on us. I would like to thank AWWAO for giving my friend the recognition he deserves in front of his family and friends. Ian was a special person and it was a very special night. Thank you!

Allan Dupuis
Chapleau Cree First Nation
AWWAO Board Member



2022-23 Water Taste Challenge Cup Winners

AWWAO's Board of Directors and AWWAO members would like to congratulate this year's winners of the 2022-23 Josephine Mandamin (North) and Derrick Kamanga (South) Water Taste Challenge Cup

Southern Cup Champions

Mississauga of Scugog Island

Northern Cup Champions

Abitibi Wahgoshig

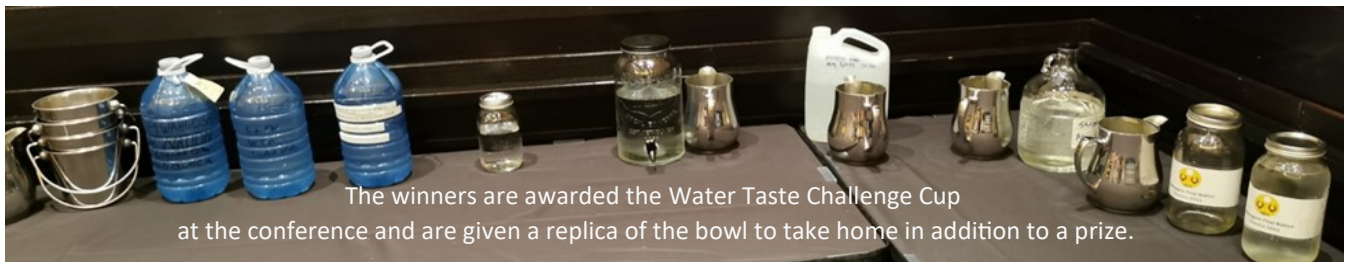


2022-2023 Water Taste Challenge Cup Winners

Left: (South) Karolyne Newby, Mississauga of Scugog Island (presented by Phil Tangie, AWWAO Chairperson)

Right: (North) Edward Black and Greg Edwards from Abitibi Wahgoshig First Nation

Thanks to these communities for bringing water samples from their communities to participate in the contest: Constance Lake, Mattagami, Walpole Island, Tyendinaga, Sheshegwaning, Mohawks of the Bay of Quinte



The winners are awarded the Water Taste Challenge Cup at the conference and are given a replica of the bowl to take home in addition to a prize.



The Water Cup Challenge involved a panel of judges weighing the taste and appearance of tap water produced by reserve water systems.

AWWAO would like to thank the volunteers for judging in the 2023 Water Taste Challenge. We sincerely appreciate your time and effort in making our contest a success.

Rose Mary Fortin
Louise Gauvin
Noah Henderson

Anna May Chaloux
Jacqueline Roy
Diana Cushing



2023 Operator of the Year Announcement

AWWAO OPERATOR OF THE YEAR (2023)

• Liz Brant •

ELIZABETH BRANT, MBQ WATER OPERATOR, HAS WON ABORIGINAL WATER & WASTEWATER ASSOCIATION OF ONTARIO'S AWARD FOR WATER OPERATOR OF THE YEAR FOR SOUTHERN FIRST NATIONS! LIZ HAS DEMONSTRATED DEDICATION AND COMMITMENT TO THE COMMUNITY WHILE ENSURING MBQ'S WATER PLANT AND DISTRIBUTION SYSTEM IS OPERATING EFFECTIVELY AND MANAGING THE WATER DELIVERY PROGRAM WHICH INVOLVES INSPECTION AND DELIVERY COORDINATION TO 200+ CLIENTS. CONGRATULATIONS LIZ, AND NYÁ:WEN FOR ALL OF THE WORK YOU DO TO PROVIDE CLEAN DRINKING WATER TO OUR COMMUNITY!

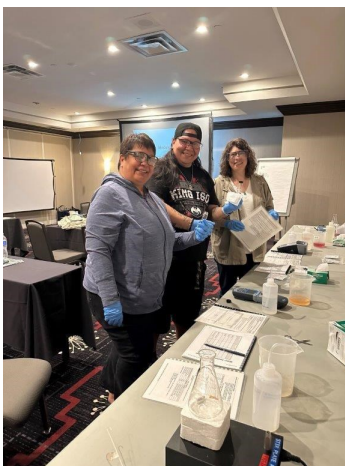


Windsor Exam Prep Recap

In our continued quest to improve the First Nations Operators' levels of certification, AWWAO hosted a Southern exam preparation week in Windsor from June 5th to 9th. The week contained four days of classroom exam preparation courses: OIT, WWTI & II and Basic Chemistry, Water Quality Analyst followed by a fifth day to write a Provincial Certification Exam. A total of 25 operators attended the prep week. The World Water Operator Training Company Inc. (WWOTC) and the Walkerton Clean Water Centre (WCWC) provided the training for these courses.



AWWAO thanks WWOTC instructors Dave Russell , Matt Prentice and WCWC instructor Lindsay Arris for course delivery and certification exam preparations.



Congratulations to the winners of \$100 gift cards from the exam prep week in Windsor:

Thomas Oakes, Aaron Beaucage and Karolyne Newby.

Operator Math Corner

Article #5 - Getting Comfortable with Unfamiliar Territories-Part 2

Operators Math Corner

By Hany G. Jadaa; C. Chem., M.Sc. Eng.

LEXICON Environmental Consulting Services Inc.

Article #5 – Getting Comfortable with Unfamiliar Territories – Part 2

It is not too often that I get the pleasure of sharing some of my trade secrets with fellow operators and managers in this business. Well, they're not really secrets; they are merely personal practices, habits and little tricks that I have adopted over the years in my eternal quest for making life simple for all of us. And in this industry, what could be better than making math a simple tool (yet an effective one) to use and apply in our everyday life? Or, for those of you seeking higher certification levels, what could be better than giving you the opportunity of gaining an extra few marks on your certification exams? I think you would definitely like that.

Throughout my last four articles (first one appeared in the Spring of 2015), this is exactly what I have attempted to do; make math simple/simpler for you. So far I have shared with you some of the indispensable rules of solving basic math problems; shown you the most essential and fundamental units that we all need to know in this business; and introduced you to what many of my colleagues now famously call the "Hany" method of converting between units (even though I did not invent this, but thank you for the compliment!). And in my last article, I walked you through my step-by-step guide to converting between units utilizing a couple of straightforward examples using the Hany method. I hope that the graphical illustrations shown so far have proven to be of some success to you, regardless of what system of units you studied or grew up with.

In this article I would like to explore with you the conversion process a bit further based on comments, thoughts and questions that I have received from many of you throughout my career in consulting and training.

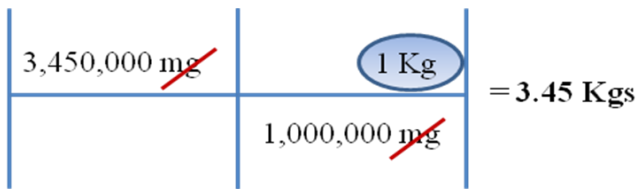
Number 1 – this pertains to short cuts and when to use them. I prefer to call them short hauls. Let me use an analogy to explain. Consider you are taking a flight to a far destination; you want to fly from Toronto to Beijing. Using this analogy, note that Toronto is your starting destination, and Beijing is your final destination. In considering your travel plans, you have several choices to make regarding flights. You can fly direct (i.e., non-stop from Toronto to Beijing); or, you can fly from Toronto to Vancouver, then from Vancouver to Beijing; or, you can fly from Toronto to Vancouver, Vancouver to Taiwan, then Taiwan to Beijing. You get the idea. The important issue to keep in mind is that Beijing is your final destination, regardless of how you choose to get there. Now obviously the flight that is most direct and would require the shortest travel time is just that – the most direct and the shortest (Toronto to Beijing). But how many of us feel comfortable doing that? Let's apply this analogy to conversions.

Say you need to convert 3,450,000 milligrams to kilograms. First of all recall some of the basics I talked about in my second article titled "*The Wonderful World of Units*". Both units, "milligrams" and "kilograms" fall into the same category of measure, and that is "weight"; and accordingly, yes, you can convert from one to the other as long as you know the conversion factors involved. Second, you can choose to convert whichever way you like (and I'm not kidding). Similar to you picking your choice of flights, here are some choices. You can convert directly from milligrams to kilograms; you can convert from milligrams to grams, then from grams to kilograms; or

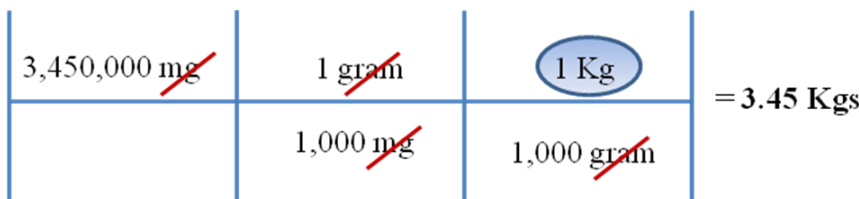
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you can convert from milligrams to grams, grams to pounds, then pounds to kilograms; etc. The choices can be many. Either route you take, you need to remember the fundamental issue at hand, and that is, milligrams is your starting point (the equivalent to Toronto in our analogy), and kilograms is your final destination (the equivalent of Beijing in our analogy). It doesn't really matter which route you take to get there, as long as you get there (most important), and as long as you are comfortable with your choice. If you are writing certification exams, I would add that getting there in the shortest time possible is critical. Here are some options illustrated as follows:

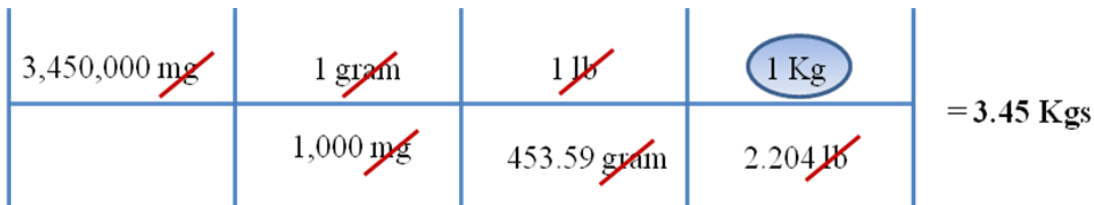
Option 1 – mg è Kg (one step)



Option 2 – mg è gram è Kg (two steps)



Option 3 – mg è gram è lb è Kg (three steps)

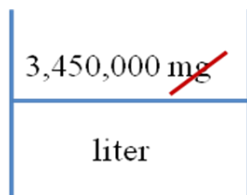


Notice the following. **1)** The first choice is the shortest and most direct way to do this, and the third choice is the longest and most demanding. **2)** If you go with the first choice, "mg" from the first box cancels with "mg" from the second box, and you end up with "kgs" in the most direct way. If you go with the second choice, "mg" from the first box cancels with "mg" from the second box, but that takes you only to "grams". That's why you need another leg of this flight to take you from "grams" in the second box to cancel "grams" in the third box so you would end up with "kilograms" as your final destination. If you choose to do it the long way, it will still get you to your final destination, but obviously this requires you to remember a couple of more conversion values. The key issue to note here again is this – always remember what your final destination is. How you get there, it is up to you and your comfort level (obviously, we are talking about how many units you want to remember or look up in a table somewhere). I choose to remember the least possible (especially when I am writing exams and time is of the essence), so I am taking the most direct route, and that is the first option. 1 kilogram is equal to 1,000,000 mg. Done.

Cont'd

Number 2 – you do not have to fill in every drawer in every Hany box. The above example required you to convert from mg to kg. If you examine the first box very closely, there is nothing in the bottom drawer of the first box. Why is that? Because I am dealing with a single unit here, and that is “mg”. There is no other unit. Therefore the bottom drawer remains empty as it should be.

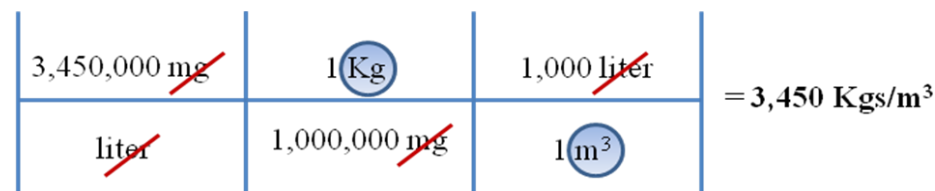
Now if the example had said something like 3,450,000 mg/liter, then both drawers would be filled, with “mg” in the top part and “liter” in the bottom part, and the Hany box would be written as follows:



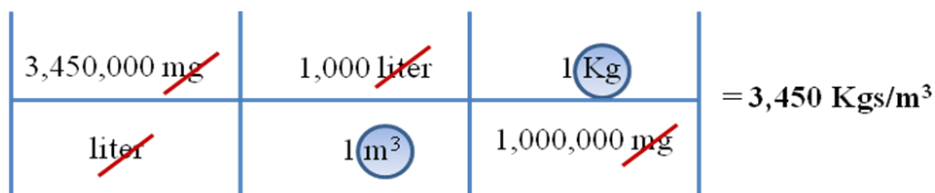
A quick note on this – never include “mg” and “liter” in the same drawer of the same box (see above). Always remember to keep your units separate. After you have separated your units, any required conversions after this starting point would be carried out as shown before.

Number 3 – when you have multiple conversions to go through, it doesn’t really matter which one you start with; i.e., the order of performing these conversions does not really matter. Let me illustrate this by using an example.

Let’s say you want to convert 3,450,000 mg/liter to Kg/m³. The unit “mg/L” is a typical expression of what we call “concentration” in this business. It combines the weight of some chemical (or some process parameter), measured in unit of “mg”, with the volume of some liquid (typically water) measured in unit of “liter”. Hence, the term “mg/L” is a combined unit. When converting combined units like this one, you can do it in one of two ways as illustrated below:



or



Obviously, converting weights first then volumes second yields the same result as converting volumes first then weights. The order does not matter, as long as both are done. Which brings me to the following point.

Number 4 – a lot of people ask me the question “once I have set-up my boxes, should I multiply first and then divide or the other way around”? Well, when it comes to using your calculator, I want you to notice the sequence of operations in the two illustrations above. Let’s look at the first choice. Following the boxes systematically (from

Cont'd

Box #1 to Box #3), they are telling us to take the number 3,450,000 and divide it by 1,000,000, then multiply the answer by 1,000. If we examine the second choice, it is telling us to take the number 3,450,000 and multiply it by 1,000, then divide by 1,000,000. Interestingly enough, both options give us the same answer. This is because multiplication and division are interchangeable, and it doesn't matter which you do first (as long as you do both of them in this case). Whether you divide first and then multiply, or you multiply first and then divide, your answer should be (and will be) the same. Try it for yourself by performing the following operations in the same order shown below (I have selected some random numbers as an example to illustrate this concept):

$$6 * 5 * 1 * 2 \div 3 = ?$$

$$6 * 2 \div 3 * 5 * 1 = ?$$

$$2 \div 3 * 5 * 1 * 6 = ?$$

As you can see, the order by which this is done does not matter and the answer will always be 20. Clearly this gives you great flexibility and an added comfort level in terms of how you want to set-up the above conversion boxes.

Number 5 – you can always tell visually when you have set up the boxes in the wrong way and when you are going to get the wrong answer. And yes, I did say “visually”, which also means without the need to use a calculator. Let's use the same example as above and convert 3,450,000 mg/liter to Kg/m³. Does the set-up below look like it's been done correctly?

3,450,000 mg	1,000,000 mg	1 m ³
liter	1 Kg	1,000 liter

No, it has not been done correctly. Can you tell why just by looking at it? I want you to ignore the numerical values and just look at how the units are set up. Can you cancel any units here? If you follow through with this, you can see that the “mg” from Box #1 does not cancel with the “mg” from Box #2, and the “liter” from Box #1 does not cancel with the “liter” from Box #3. Furthermore, you will end up with the unit of mg² on the top and the unit of liter² on the bottom. Is there such a unit as mg² or liter²? This tells you that your set-up is incorrect and you need to turn Box #2 and Box #3 upside down to facilitate the cancellation of these units. And notice something else that is interesting here. I did not have to use my calculator to tell me I will be getting the wrong answer if I proceeded with it the way it is set-up now! It's all in the units.

Number 6 – when it comes to unfamiliar units of measure, many people get confused and start asking questions like “which is bigger – a gallon or a m³?” and “if it is bigger, should I multiply by the conversion value or should I divide by it”? My answer to these questions is very simple. You do not need to know which is bigger or smaller, and you do not need to think so hard whether you should multiply or divide. Let the units guide you. Write down the given unit in the first box as I have shown you before, then set-up the desired target unit with its numerical conversion value in the opposite location (or drawer) in the following box, and voila. Using only visuals, the set-up will tell you whether to multiply or divide. If the numerical values falls above the divide line in the Hany box, you

Cont'd

multiply. If they fall below the divide line, you divide. Simple. And no need to remember which is bigger or smaller.

Number 7 – I need to emphasize another important issue. Your calculator is the last tool you will need to solve any of these math problems, not the first tool. There is no point in punching numbers on your calculator if you do not know whether to multiply them or to divide them. If you have set up the conversion boxes incorrectly, it doesn't matter how smart or how powerful your calculator is, you will end up with the wrong answer. Once again, let the units guide you. Focus on setting up the right units in the proper drawers of each box, then, and only then, use your calculator. Once again, if the numbers fall above the divide line, you multiply them, and if the numbers fall below the divide line, you divide them. Setting up the units properly as your first step will always guarantee you the right answer. Of course that is if you punch the right numbers on your calculator!

Number 8 – one last thought before I let you go. This is especially important for those of you planning on writing certification exams (or any exams for that matter). You know those multiple choice answers with different numerical values? In most cases, those numbers are not randomly generated values. They are typically chosen based on common mistakes that people do and then calculated accordingly. Let me show you what I mean.

Say your chemical consumption at the plant is measured at the beginning of the shift everyday at 7:00 am, and the last reading indicated you have used 75 m³ of chemical. You have to report this on your data log sheet in the unit of mL/sec. The answer would be:

- a) 52,083 mL/sec
- b) 868 mL/sec
- c) 52 mL/sec
- d) 0.868 mL/sec

I did not just make up the above numbers. Based on common mistakes that people do, I purposely ignored or forgot to multiply (or divide) by some conversion factor (or factors) in order to generate these values. And that is exactly how it is done on many exams. So, try to become systematic, methodical, and more vigilant in your practice of unit conversions. Because it is very easy to come up with an answer that resembles any of the above choices, but only one is correct. But which one?

I'm afraid you will have to wait until the next issue to find out. In the meantime, try to figure out what went wrong when I came up with these choices and see if you can spot the mistakes I made. And as usual, if you have any questions, suggestions or comments please feel free to send me an email at lexicon@ca.inter.net.

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7th Annual Tradeshow

AWWAO would like to express our thanks to the 31 exhibitors for sharing their knowledge and expertise at the 7th Annual Tradeshow!!



Cont'd



Cont'd



Classes



Drummers

AWWAO would like to thank the Snake Island Singers for opening and closing the ceremony with traditional song.

A special thanks to John Snake for teaching and leading the 12 children in singing and drumming. The enthusiasm of the children is evident in the photos and it was special for all those in attendance to have the youth involved in the ceremonies. Six adults and 12 children were involved in the presentation of traditional songs and drumming.



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